

**CLAIMS**

1. Subcutaneous implants comprising:

- a core (i) comprising at least one active principle dispersed in a polymeric matrix

5 essentially consisting of PLGA

- a coating (ii) in film form comprising as the main component PLGA.

2. Subcutaneous implant as claimed in claim 1, wherein the active principle contained in the core (i) is chosen from the class consisting of: a peptide, an active principle able to increase bone density, an analgesic-narcotic, a steroid hormone  
10 for hormonal treatments during menopause or for contraception.

3. Subcutaneous implant as claimed in claim 2, characterised in that when the core (i) contains a peptide the particles of said active principle present extremely heterogeneous dimensions which vary from 1 micron to 63 microns.

4. Subcutaneous implants as claimed in any one of claims 1-3, characterised in that the PLGA used in the core (i) preferably presents a molecular weight between  
15 50,000 and 150,000 and a molar ratio of lactic acid to glycolic acid monomers between 50:50 and 95:5.

5. Subcutaneous implants as claimed in anyone of claims 1-4, wherein the coating (ii) contains PLGA in amounts ranging from 75 to 99,999% and the remaining to 100 essentially consisting of excipients and/or of the same active  
20 ingredient used in the core (i).

6. The subcutaneous implants according to claim 5, wherein the coating (ii) essentially consists of PLGA.

7. The subcutaneous implants according to claim 5, wherein the coating (ii)  
25 consists of a mixture of 80% PLGA and the remaining to 100% of at least one hydrophilic excipient .

8. The subcutaneous implants according to claim 7, wherein said hydrophilic excipient is selected from the group consisting of polyvinyl pyrrolidone, D-mannitol and mixtures thereof.

9. The subcutaneous implants according to claim 5, wherein the coating (ii)  
30 consists of a mixture of 75% PLGA and the remaining to 100% of the same active ingredient contained in the core (i).

10. Subcutaneous implant as claimed in any one of claims 1-9, characterised in that said coating in film form (ii) consists of PLGA with a molecular weight between 50,000 and 150,000 and a molar ratio of lactic acid to glycolic acid monomers between 50:50 and 95:5.
- 5 11. Subcutaneous implant as claimed in claim 10, wherein said PLGA presents an average molecular weight between 100,000 and 150,000 and said molar ratio is comprised between 50/50 and 75/25.
12. Subcutaneous implant as claimed in any one of claims 1-11, characterised in that the coating (ii) presents a thickness between 5 and 250  $\mu\text{m}$ .
- 10 13. Subcutaneous implant as claimed in claim 12, wherein said thickness is comprised between 10 and 100  $\mu\text{m}$ .
14. Process for preparing the subcutaneous implants as claimed in anyone of claims 1-13, comprising the following stages:
- a) preparing the core (i) containing the active principle,
- 15 b) passing the core (i) into a solution of PLGA in a suitable solvent chosen from apolar and aprotic polar solvent such that said cores remain in contact with said solution for a period between 1 and 5 seconds,
- c) drying said cores originating from stage (b).
15. Process as claimed in claim 14, wherein the apolar solvent is a chlorinated
- 20 solvent.
16. Process as claimed in claim 15, characterised in that said solvent is methylene chloride.
17. Process as claimed in claim 14, wherein said aprotic polar solvent is chosen from acetonitrile, ethyl acetate, tetrahydrofuran.
- 25 18. Process as claimed in any one of claims 14-17, wherein the PLGA concentration in the solution used in stage (a) is comprised between 70 and 300 g/l.
19. Process as claimed in claim 18, wherein said concentration is comprised between 100 and 200 g/l.
- 30 20. Process as claimed in any one of claims 14-19, characterised in that said contact time is 1 second.
21. Process for preparing the subcutaneous implant in according to any one of

claims 1-13 comprising the following stages:

- a') mixing the active principle with PLGA,
- b') possibly granulating the mixture originating from (a') in the minimum solvent quantity, and drying the granules obtained,
- 5 c') co-extruding the mixture originating from (a') or from (b') together with the PLGA used for preparing the coating in film form (ii).